UNITED STATES PATENT AND TRADEMARK OFFICE

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10/600,338	06/23/2003	Seung Young Choi	1293.1838	6574

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 March 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-19 and 21</u> is/are pending in the application.

    4a) Of the above claim(s) <u>19 and 21</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-18</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>13 July 2007</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

In response to applicant's amendment received 3/28/08, all requested changes have been entered.

Response to Arguments

Applicant's arguments with respect to all of the claims have been considered but are moot in view of the new ground(s) of rejection. The newly amended features have been considered.

The new limitation indicates that the desired image in the printing application can be displayed on a part of a full screen and that other applications of the user may be displayed at the same time on the screen. This feature has been well known in the display art since one of the primary features of known operating systems such as Microsoft Windows is to be able to display multiple applications at the same time. For example, DeStefano (U.S. P.G. Pub. No. 2001/0003186) discloses in P[0010] discloses that computer systems are known to be able to execute and display multiple applications at the same time. The previous cited references are still believed to cite the previously presented features, and DeStefano is used to teach/suggest the newly amended limitations.

Again, it is acknowledged that P[0005] of the applicant's specification refers to a printer without a LCD, but having a printer with a LCD does not take away the ability to display images on a monitor of a computer attached to the printer. The printer in Sekikawa is a display-free printer with additional functionality, which in this case

happens to be a control panel display and capability to process images on the display.

Thus, one of ordinary skill can simply "dumb down" the printer of Sekikawa and remove

the display part to instead use the monitor's display, or simply choose not to use the

display mechanism of the printer. Please see the rejection below for more detail.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

I.   Claims 1-14, 16-18 rejected under 35 U.S.C. 103(a) as being unpatentable over

Sekikawa (U.S. Patent No. 6,498,658) in view of Bubie et al (U.S. Patent No.

6,453,078) and further in view of DeStefano.

Regarding claim 1, Sekikawa discloses a method of printing an image using an

display-free image printing unit, which prints an image corresponding to image data

read from an external memory card, and a personal computer, which is connectable to

the display-free image printing unit, the method comprising:

checking for or generating compressed image data from the external memory

card in the display-free image printing unit; transmitting the compressed image data to

the personal computer together with an image number; (column 19, lines 39-44 – this

shows that compressed image data is transferred. Figs. 20A-G shows how a compressed image data is identified. One can see that the header includes an ID number)

storing the compressed image data and the image number transmitted from the display-free image printing unit in the personal computer; (column 19, lines 39-44 – the data is received from the digital copier by the personal computer – it would be inherent that this data is stored in the personal computer)

displaying by the personal computer the image data transmitted from the display-free image printing unit; (column 19, lines 50-53) and

It does not explicitly disclose "printing at the display-free image printing unit the displayed image data in response to a user print request at the display-free image printing unit; and

wherein a size of image data displayed on a monitor occupies part of a full screen of the monitor and a user prints the image at the image display-free printing unit by selecting a desired image while another application of the user or another user is contemporaneously displayed on the monitor"

However, Sekikawa discloses in Figs. 15-16 that images can be printed using the printer's control panel. Bubie also discloses in Figs. 3, 4 that images can be manipulated on a computer monitor. The tertiary reference, DeStefano, discloses in P[0010] that computer systems are known to be able to execute and display multiple applications at the same time.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used the all three reference's teachings to obtain the claimed invention.

The motivation would have been to allow an user to use a bigger monitor on a personal computer to more easily see and manipulate images and print them at a printer, while being able to run other important applications that the user may need.

Therefore, it would have been combine all references to obtain the invention as specified.

Regarding claim 2, Sekikawa discloses the method of claim 1, further comprising:

determining whether the memory card with the image data has been inserted into the display-free image printing unit and whether the display-free image printing unit has been connected to the personal computer, (Fig. 4A shows memory card connection. While not explicitly stated, one can see from Fig. 1 that the digital copier is connected to the personal computer through the serial or parallel interface. It would be inherent to know whether the personal computer was connected.)

wherein the compressed image data is checked for or generated upon the determining of insertion of the memory card into the display-free image printing unit and connection of the display-free image printing unit to the personal computer. (column 12, lines 15-56, note especially lines 49-56.)

Regarding claim 3, Sekikawa discloses the method of claim 1, wherein if the user

does not request to print the displayed

image data, the displaying of the image data at the personal computer continues.

(column 19, lines 45-57)

Regarding claim 4, Sekikawa discloses the method of claim 2, wherein the

determining comprises:

determining whether data stored in the memory card is the image data, if

determined that the memory card has been inserted into the image printing unit;

(column 12, lines 17-24 – the image is displayed when the memory card is inserted,

meaning there is some determination that there is image data to be displayed) and

determining whether the display-free image printing unit has been connected to

the personal computer, if determined that the data stored in the memory card is the

image data. (Again, while not explicitly stated, one can see from Fig. 1 that the digital

copier is connected to the personal computer through the serial or parallel interface. It

would be inherent to know whether the digital copier was connected to the personal

computer.)

Regarding claim 5, Sekikawa discloses the method of claim 1, wherein the

checking for or the generating of the

compressed data comprises:

determining whether the image data read from the memory card includes compressed image data; (column 12, lines 41-56 – from these lines, the printer would have to know that the data is not compressed since it compresses the images to produce the reduced images) and

compressing the image data, if determined that the image data read from the memory card does not include the compressed image data. (column 12, lines 41-56)

Regarding claim 6, Sekikawa discloses the method of claim 1, wherein the displaying of the image data comprises:

reading by the personal computer the image data corresponding to a user selected image number at the display-free image printing unit and transmitted from the display-free image printing unit to the personal computer; (column 20, lines 45-57 – although Sekikawa discloses that the user selects the image on the computer, one can see from Figs. 15 and 16 that images can be selected on the digital copier as well) and

displaying the read image data. (column 20, lines 50-57)

Regarding claim 7, the Sekikawa reference discloses printing images from a memory card.

It does not explicitly disclose "wherein the reading of the image data comprises:

ignoring the image number provided from the display-free image printing unit as a last image number, if a previous image data is being displayed; and

reading the image data corresponding to the last image number after the previous image data is completely displayed."

However, Bubie et al discloses in column 1, lines 45-60 that prior art techniques are known to display one image at a time. Slideshows, especially, display only one image at a time (i.e. the previous image), with the next image being ignored until the current image is displayed for a set period of time.

All references are combinable because they are in the art of printing images efficiently.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a display mechanism such as a slideshow to display only pertinent images.

The motivation would have been to allow users to focus on one image at a time if that image is deemed to be important.

Therefore, it would have been obvious to combine all references to obtain the invention as specified.

Regarding claim 8, Sekikawa discloses the method of claim 6, wherein the displaying of the image data further

comprises:

transmitting the user selected image number to the personal computer, if the personal computer is ready to receive a new image number; (column 19, lines 45-57). and

reading by the personal computer the image data corresponding to the user

selected image number provided from the image printing unit. (column 19, lines 45-57).

Regarding claim 9, Sekikawa discloses the method of claim 1, wherein the

personal computer includes a monitor, and

the image data is displayed in a predetermined size at a predetermined position on the

monitor. (column 19, lines 45-57).

Regarding claim 10, Sekikawa discloses the method of claim 1, wherein the

image data is displayed according to a variable size at a variable position. (column 19,

lines 45-57 – although Sekikawa discloses using a reduced image, the size of the

reduced image can be altered in known ways, and would be obvious to place the image

in any suitable display position on a monitor).

Regarding claim 11, Sekikawa discloses the method of claim 9, wherein the

predetermined size occupies a part of a screen of the monitor. (column 19, lines 45-57 –

it is inherent that the display of an icon would occupy a part of the screen).

Regarding claim 12, Sekikawa discloses the method of claim 1, wherein the

printing of the image data comprises:

reading at the display-free image printing unit the displayed image data from the

memory card in response to the user print request; (column 19, lines 53-57).

image processing the read image data; (column 4, lines 8-10) and

printing the image-processed image data. (column 19, lines 53-57).

Regarding claim 13, Sekikawa discloses a computer system printing an image

using an image printing unit, which prints an image corresponding to image data read

from an external memory card, and a personal

computer with a monitor which is connectable to the image printing unit, (Fig. 1)

the display-free image printing unit comprising:

a print preparing section determining whether the memory card with the image

data has been inserted into the display-free image printing unit and whether the display-

free image printing unit has been connected to the personal computer, and outputting a

determination result as a control signal; (Fig. 4A and from claim 2 above, one can see

from Fig. 1 that the digital copier is connected to the personal computer through the

serial or parallel interface. It would be inherent to know whether the personal computer

was connected.)

a data processor processing the image data read from the memory card,

checking for or generating compressed image data in response to the control signal,

and transmitting the compressed image data to the personal computer together with an

image number; (column 12, lines 41-56, Fig. 20A-G)

a key operating section operated by a user to select the image number and

outputting a print request signal requesting to print the image data corresponding to the

user selected image number; (Figs. 15, 16) and

a printing section printing the image-processed image data received from the

data processor in response to the print request signal, (Fig. 1, item 121)

the personal computer comprising:

a storage storing the compressed image data and the image number transmitted

from the data processor; (column 19, lines 45-57 – again, it would be inherent for the

computer to store the received image data) and

a display controller reading, from the storage, the image data corresponding to

the user selected image number at the display-free image printing unit and displaying

the read image data on the monitor. (column 19, lines 45-57)

It does not explicitly disclose "wherein a size of image data displayed on a

monitor occupies part of a full screen of the monitor and a user prints the image at the

image display-free printing unit by selecting a desired image while another application of

the user or another user is contemporaneously displayed on the monitor"

However, Bubie also discloses in Figs. 3, 4 that images can be manipulated on a

computer monitor. The tertiary reference, DeStefano, discloses in P[0010] that

computer systems are known to be able to execute and display multiple applications at

the same time.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to have used the all three reference's teachings to obtain the

claimed invention.

The motivation would have been to allow an user to use a bigger monitor on a personal computer to more easily see and manipulate images and print them at a printer, while being able to run other important applications that the user may need.

Therefore, it would have been combine all references to obtain the invention as specified.

Again, please refer to the response to arguments and claim 1 for more detail regarding the point of view of the examiner on the display-free printing unit.

Regarding claim 14, Sekikawa discloses the apparatus of claim 13, wherein the print preparing section comprises:

a sensor sensing whether the memory card has been inserted and outputting a sensing result; (Fig. 4A)

a first data detector detecting a type of data read from the memory card in response to the sensing result; and (column 12, lines 47-56)

a connection checker checking whether the personal computer has been connected to the display-free image printing unit in response to a detection result received from the first data detector and outputting a connection check control signal. (one can see from Fig. 1 that the digital copier is connected to the personal computer through the serial or parallel interface. It would be inherent to know whether the personal computer was connected. Although Sekikawa just discloses what happens

and does not explicitly give part names, the functions of the various claimed parts are

disclosed by Sekikawa and would be easily implemented in a sensor or detector of

some kind)

Regarding claim 16, Sekikawa discloses the apparatus of claim 13, wherein the

display controller comprises a data reader reading, from the storage, the image data

corresponding to the user selected image number, which is generated in the key

operating section and transmitted from the image printing unit, and outputting the read

image data to the monitor for the displaying. (column 19, lines 45-57)

Regarding claim 17, Sekikawa discloses the apparatus of claim 13, wherein the

display controller comprises: a position/size determiner determining a position at which

the read image data is to be displayed on the monitor and a size of the read image data

to be displayed, and the monitor displays the read image data according to the

determined size at the determined position. (While not explicitly disclosed, the display

controller for the personal computer would work similar to the display controller of the

digital copier in that it will identify an appropriate position and size for an image, like that

of Figs. 15 and 16).

Regarding claim 18, Sekikawa discloses the apparatus of claim 17, wherein the

position/size determiner varies the display position and size of the image data and

outputs the varied results to the monitor. (column 19, lines 45-57 – although Sekikawa

discloses using a reduced image, the size of the reduced image can be altered in

known ways, and would be obvious to place the image in any suitable display position

on a monitor)

II.   Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Sekikawa

(U.S. Patent No. 6,498,658) in view of Bubie et al (U.S. Patent No. 6,453,078) and

further in view of DeStefano and further in view of Official Notice.

Regarding claim 15, Sekikawa discloses the apparatus of claim 13, wherein the

data processor comprises:

a second data detector detecting whether the image data read from the memory

card includes the compressed image data in response to the control signal; (column 12,

lines 47-56 – the determination would be that the image data is not compressed, since it

goes on to compress the data to create a reduced image)

a data compressor compressing the image data read from the memory card in

response to a detection result received from the second data detector; (column 3, line

66- column 4, line 7)

an image number generator generating the image number to be uniquely

allocated to the image data read from the memory card; (Figs. 20A-G)

a data transmitter transmitting the compressed image data received from the

memory card or from the data compressor to the personal computer together with the

generated image number received from the image number generator, in response to the

detection result received from the second data detector, and transmitting the user

selected image number received from the key operating section to the personal

computer; (column 20, lines 45-57 – although Sekikawa discloses that the user selects

the image on the computer, one can see from Figs. 15 and 16 that images can be

selected on the digital copier as well) and

Sekikawa does not explicitly disclose "a format converter converting an RGB

format of the image data read from the memory card into a CMYK format and outputting

the image data having the CMYK format to the printing section."

However, RBG and CMYK formats are well known in the art of printing.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to have used conventional color representation of images.

The motivation would have been to have compatibility when printing images.

Therefore, it would have been obvious to use known color spaces in the

Sekikawa reference to obtain the invention as specified.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Yixing Qin whose telephone number is (571)272-7381.

The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YQ

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625